

1 **ABSTRACT OF THE DISCLOSURE**

2 A dual actuator arm assembly system that uses two pairs of actuator-carriage arms
3 that linearly move over a stationary micro-rail independently. The geometric shape of the
4 two pairs of actuator carriage arms conform to the arcs of the data tracks at an acute angle.
5 System enables micro-actuation that is integrated to actuator arm and is a function of its
6 geometry. Uninterrupted data stream and sector coverage and thus parallel data transfer
7 scheme is made possible. Each actuator move only within a limited range of disk area, thus
8 precision is increased, vibration is minimized and external transfer rate is speeded up and
9 overall access time is shortened. Instant access to two quarters of the disk with two pairs of
10 actuators and to park these without landing the heads-by positioning and constant fly height
11 during idle mode, or when system is turned off, are introduced as what are new in the art.

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